

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

LEAGUE OF CONSERVATION VOTERS <i>et al.</i> ,)	
)	
<i>Plaintiffs,</i>)	
)	
v.)	No. 3:17-cv-00101-SLG
)	
DONALD J. TRUMP <i>et al.</i> ,)	
)	
<i>Defendants,</i>)	
)	
AMERICAN PETROLEUM INSTITUTE and STATE)	
OF ALASKA,)	
)	
<i>Intervenor-Defendants.</i>)	
)	

DECLARATION OF DAN RITZMAN

I, Dan Ritzman, hereby declare as follows:

1. I live in Seattle, Washington.
2. I am the Director of the Lands, Water, Wildlife Campaign for the Sierra Club. I have worked for Sierra Club since April of 2007. I am also a member of the Sierra Club, and have been a member for eleven years, and I am a member of Greenpeace USA, and have been a member for twenty-one years. As a member of the Sierra Club and Greenpeace, I rely on them to represent my interests in Alaska conservation issues.
3. In my current role with the Sierra Club, I direct four campaign staff and I serve as the primary Sierra Club policy and advocacy contact for issues related to Alaska, including the Alaska Arctic. As part of my daily work, I advocate for the protection and conservation of Alaska's Arctic, including the Beaufort and Chukchi Seas. I have worked on issues related to the Alaska's Arctic for 25 years. In that time not only have I developed what I consider to be a deep knowledge of the issues but also a great appreciation for the landscape – for the flora and fauna that it supports and the people who live and subsist off of the land and the waters.
4. Sierra Club is a national non-profit organization of over 3,200,000 members and supporters dedicated to exploring, enjoying and protecting the wild places of the earth; practicing and promoting the responsible use of the earth's ecosystems and resources; educating and enlisting humanity to protect and restore the quality of the natural and human environment; and using all lawful means to carry out these objectives. Sierra Club's interests encompass a wide range of environmental issues, including wildlife conservation, wilderness, public lands and waters protection, and the protection of clean air and water resources. Sierra Club members seek out wilderness for its scenery, wildlife, and solitude.

5. The Alaska Chapter of Sierra Club has over 1,400 members. The Alaska Chapter includes three all-volunteer groups, whose members work to preserve and protect Alaska's resources, including the unique wilderness and wildlife resources of the Alaskan Arctic.

6. Sierra Club members have visited and will continue to visit various parts of the Arctic Coast for recreation in natural and wilderness settings, and they rely on the Sierra Club to protect their interests in the Chukchi and Beaufort Sea regions. Oil and gas exploration drilling activities in the Chukchi and Beaufort Seas threaten these uses. Sierra Club is concerned that oil and gas exploration and development activities will reduce the amount of undisturbed public lands, and this will in turn cause direct and irreparable harm to Sierra Club members whose opportunities to experience undisturbed land, wilderness, wilderness travel, and recreation in a natural landscape will be reduced.

7. The Chukchi and Beaufort Seas are home to America's entire population of threatened polar bears as well as endangered bowhead whales, beluga and gray whales, Pacific walrus, seals, and numerous species of migratory birds including threatened spectacled and Steller's eiders. The coastlines of Arctic Alaska are also important habitat for many other species such as caribou, grizzly bears, and numerous shore birds. Sierra Club and its members are dedicated to the protection of healthy wildlife populations, including those that depend on the Chukchi and Beaufort Seas and nearby coastal areas. Many Sierra Club members recreate in natural and wilderness settings for the opportunity to observe healthy, intact wildlife populations. If these opportunities are compromised by oil and gas exploration and development activities, Sierra Club and our members will be negatively affected. President Trump's executive order lifting protections from expanded Arctic Ocean drilling greatly increases the threat of this industrial activity and its negative effects on the environment, Sierra Club, and its members.

8. Sierra Club members would be negatively affected by seismic surveying activities associated with oil and gas leasing and development in the Beaufort and Chukchi Seas. Seismic surveying involves a tremendous amount of motor vessel activity coupled with sonar activity that creates major under-water noise pollution that likely would cause harm and displacement to marine mammals, migratory birds, and fish. These activities could negatively impact our members' ability to see and experience these migratory animals both in the Arctic and in other coastal areas if these animals are killed or injured and unable to migrate. Additionally, Sierra Club members are concerned that displacement and injury to these animals would inhibit the ability of local Alaska Native communities to subsistence hunt.

9. Sierra Club has been actively involved in the protection of the unique wilderness and wildlife values of the Alaskan Arctic, including the Arctic Ocean and the adjacent onshore areas of the Arctic National Wildlife Refuge and the National Petroleum Reserve-Alaska. Sierra Club has invested significant organizational resources in public outreach, earned media, research, publications, and advocacy focusing on the threats to the fragile Arctic ecosystems from oil and gas leasing, exploration, and development activities.

10. Sierra Club's outer continental shelf (OCS) campaigns involve both the Chukchi and Beaufort Sea regions, where offshore oil and gas activities, including seismic surveys, would threaten sensitive marine and coastal ecosystems and wildlife with oil spills, underwater noise, air pollution, and other disturbances, and would adversely affect subsistence resources and the associated local economies and communities. The Sierra Club works to educate people regarding the effects of oil spills on the Arctic marine environment, including disturbances to wildlife and environmental effects of spill response techniques.

11. Oil and gas development offshore will also add stress to a rapidly changing environment hammered by global warming and record summer sea-ice loss. This area is being hit hardest by global warming. The Sierra Club and our members are very concerned about the impacts of climate change on the Arctic ecosystem. The Arctic is warming faster than any other part of the planet. These impacts are harming the Arctic's unique wildlife. The Sierra Club has been successfully working to protect wildlife in the Arctic for decades and climate change threatens to undo that work.

12. Sierra Club has actively participated in numerous public processes relating to oil and gas exploration and development in the Chukchi and Beaufort Seas. Sierra Club, along with other groups, submitted comments on the environmental impact statements for Chukchi Sea Lease Sale 193, the multi-sale Beaufort Sea environmental impact statement (Lease Sales 186, 195, and 202), the environmental assessments for Lease Sales 195 and 202, and the calls for information for the proposed Chukchi Sea Lease Sale 237, Beaufort Sea Lease Sale 242. Sierra Club has also commented on the 2010-15 draft proposed OCS Oil and Gas Leasing Program, the 2012-17 draft proposed OCS Oil and Gas Leasing Program and environmental impact statement, the 2017-22 draft proposed OCS Oil and Gas Leasing Program and environmental impact statement, and the environmental impact statement examining the effects of oil and gas activities, in particular seismic surveys, on the Arctic Ocean. Sierra Club has also commented on proposed authorizations for geotechnical companies to conduct seismic surveys in the Beaufort and Chukchi seas, and on the Environmental Protection Agency's general permit that authorized wastewater discharges from oil and gas geotechnical surveys in the Beaufort and Chukchi seas. More recently Sierra Club has submitted comments on the 2019-2024 draft proposed OCS Oil and Gas Leasing Program and scoping comments on a programmatic environmental impact

statement in support of the program advocating for the exclusion of the Arctic Ocean from the program. Sierra Club also has submitted comments on the call for information for the Beaufort Sea lease sale currently proposed for 2019 under the proposed plan.

13. From 2007 to 2015, Sierra Club was actively engaged in administrative advocacy related to Shell Oil's Beaufort and Chukchi seas drilling programs, including commenting on the numerous permits and authorizations required for the oil giant to explore for oil. The Sierra Club was very concerned that Shell's exploration activities in the Beaufort and Chukchi would have negative impacts on the bird and marine life that rely on a clean, noise-free Arctic Ocean for their survival. The Sierra Club has also participated in administrative advocacy related to Hilcorp's Liberty Project, a proposed oil and gas development and production project, and Eni's exploration plan for its Nikaitchuq North Project, both located in the Beaufort Sea.

14. Along with other groups, Sierra Club was a plaintiff in *Native Village of Point Hope et al. v. Salazar*, No. 1:08-cv-00004-RRB (D. Alaska), challenging the Department of Interior's decision to offer approximately 30 million acres of the Chukchi Sea OCS to oil and gas leasing. Sierra Club has also joined lawsuits challenging Department of Interior and Environmental Protection Agency decisions to authorize Shell's oil and gas exploration activities in the Beaufort and Chukchi Seas. *See e.g. Alaska Wilderness League et al., v. Kempthorne et al.*, 571 F.3d 859 (9th Cir. 2009); *Native Village of Point Hope et al. v. Salazar et al.*, Nos. 09-79342 and 10-70166 (9th Cir.); *Native Village of Point Hope et al. v. Salazar, et al.* Nos. 11-72891 and 12-70459 (9th Cir.); *Resisting Environmental Destruction on Indigenous Lands (REDOIL) et al. v. EPA*, No. 12-70518 (9th Cir.); *In re: Shell Gulf of Mexico Inc.*, IBLA 2016-48. Sierra Club has also been a plaintiff in other lawsuits challenging offshore oil and gas activities in the region. *See, e.g., Trustees v. DNR*, 795 P.2d 805 (Alaska 1990) (challenging State of Alaska lease sale in

the Beaufort Sea); *Trustees v. DNR*, 865 P.2d 745 (Alaska 1993) (same). Sierra Club has also participated in lawsuits to protect the Arctic Ocean's marine mammals. *See, e.g., Alaska Wilderness League et al. v. Jewell et al.*, No. 3:15-cv-00067-SLG (challenge to U.S. Fish and Wildlife Service regulation for the incidental take of polar bears and Pacific walrus from oil and gas activities in the Chukchi Sea.)

15. Sierra Club has also participated in the federal decision-making process concerning whether to list the polar bear as a threatened or endangered species under the Endangered Species Act. Sierra Club supports this listing, has informed its members and the general public about the issues surrounding the polar bear, and encouraged their participation in the administrative decision-making process.

16. The Sierra Club participated in the U.S. Fish and Wildlife Service's Comprehensive Conservation Plan planning process for the Arctic National Wildlife Refuge. The Sierra Club and our members submitted comments during the scoping and draft phase of the process. We alerted our members to public hearings, and staff and members testified at public hearings in Washington, DC, Anchorage, Fairbanks, and Kaktovik. We are currently participating in the administrative processes related to the Trump administration's efforts to hold oil and gas lease sales in the Refuge, which Sierra Club opposes.

17. The Sierra Club participated in the Bureau of Land Management's Integrated Activity Plan planning process for the National Petroleum Reserve-Alaska. The Sierra Club and its members submitted comments during the scoping process, the draft phase of the process, and in support of the preferred Alternative. We alerted our members to public hearings and staff and members testified at public hearings in Anchorage, Fairbanks, Barrow, Anaktuvuk Pass, and Nuiqsut. In addition, Sierra Club also actively participated in the planning and decision-making

processes for the Northwest Planning Area of the National Petroleum Reserve-Alaska. Sierra Club submitted comments on both the draft and final environmental impact statements. Sierra Club alerted our members to the scheduled public hearings, our staff and members testified at public hearings, and we subsequently joined in a lawsuit challenging the Secretary of Interior's final decision to lease the entire Northwest Planning Area. Most recently, the Sierra Club has commented on BLM's 2016 and 2017 oil and gas lease sales in the Reserve, and on the agency's consideration of the Greater Mooses Tooth 2 development project.

18. Sierra Club educates its members on issues related to oil and gas exploration and development in the Arctic through our National Sierra Club website, *Sierra*, the Sierra Club magazine, and in *The Alaska Report*, a publication of Sierra Club's Alaska Task Force. Together these publications are distributed to approximately 750,000 Sierra Club members. In addition, we send email alerts to our membership through our activist lists, which reach tens of thousands of households across the country, including Alaska. Sierra Club members rely on the Sierra Club to provide information on the potential impacts of seismic surveys, marine noise, and air and water pollution associated with oil and gas activities. The Sierra Club has regularly alerted our members to potential industrial activities and government actions that could potentially harm Chukchi and Beaufort seas ecosystems and the wildlife that rely upon them and has provided opportunities for our members to become engaged and voice their concerns.

19. In sum, Sierra Club has a strong organizational interest in the Chukchi and Beaufort Seas, the adjoining coastlines, and the species like bowhead and other whales, Pacific walrus, polar bears, and ice seals that depend on the region. The Sierra Club and our members have a long history of advocating for the protection of landscapes that are critical to the conservation of Arctic wildlife including the bowhead whale, Pacific walrus, polar bear, and ice seal. In

advocating its interests in this region, Sierra Club represents itself and its members, who use and enjoy the Chukchi and Beaufort Seas region, its resources and other values, and whose interests would be harmed by oil and gas activities that disturb this sensitive area and its wildlife.

20. In addition to working on issues related to the Arctic for the Sierra Club, I have also traveled to the Arctic both professionally as a wilderness guide and recreationally. I have been to the American Arctic, the area north of the Brooks Range, at least once each summer for the last approximately 30 years. Some of the summers I have been there more than twice, and I estimate my total number of trips to the Arctic region to be forty-two. During these trips I have camped on the gravel barrier islands along the north coast of the Beaufort Sea at least a dozen times and have also camped along the shores of the Chukchi Sea.

21. I have spent time travelling to the western Arctic, including the Brooks Range, Cape Lisburne, and the Chukchi Sea coast, and I have enjoyed viewing Pacific walrus, beluga whales, and many species of sea birds during my visits. The opportunity to potentially view walrus and sea birds has been the primary purpose of my visits.

22. I have witnessed small numbers of walrus hauled out on the coast in the area of Point Lay, and I have seen large numbers of walrus hauled out on the sea ice in the Chukchi Sea during my trips to the area in 1998, 1999 and 2009. To be able to see these animals in their natural environment has been among the highlights of my many years traveling in the wilderness. Walruses are incredibly unique animals with interesting adaptations to survive life in the Arctic and it was very special to be able to see them in their natural habitat.

23. During my trips to the Chukchi Sea in 1998 and 1999, in addition to the walrus, I also witnessed humpback whales out in the waters. I had recently traveled to Hawaii where I had gone whale watching and had seen humpbacks. When I saw them again in the Chukchi Sea, I

remember thinking how amazing it was that these animals could make this incredible journey from the warm waters of Hawaii to the icy seas of the Arctic. The thought that these animals that travel these amazing distances could be harmed by oil drilling in the Chukchi or Beaufort Sea is very disturbing to me.

24. I have also witnessed seals hauled out on the ice along the shore of the Chukchi and I worry that these animals would also be harmed by oil development and an oil spill.

25. In the summer of 1998, I spent over a month visiting the villages along the Chukchi Sea. I spent at least two nights each in the communities of Point Lay, Point Hope, Wainwright, and Barrow. During that trip I traveled both on land and on sea with local residents and I enjoyed viewing walrus, beluga whales, and many species of sea birds, including puffins. The walrus were hauled out on the floes of sea ice and I was in awe of their size and physical presence. I was also able to view walrus in the water swimming and diving for food. In mid-July, we were traveling near Kasegaluk Lagoon and I witnessed numerous beluga whales in the lagoon. We did not go too close for fear of harassing the whales, but as I watched from a distance I could see them surfacing. I had seen beluga whales before in the Cook Inlet, but I had not seen so many in such a large concentration. This experience was very special and ranks as a top experience during my decades traveling in the Arctic.

26. Since 1998, I have spent time in the coastal villages along the Chukchi and Beaufort Seas, including Nuiqsut, Kaktovik, Barrow, Point Lay, Point Hope, and Wainwright where I have visited and traveled with local hunters and elders. I value these interactions and the opportunity they have afforded me for understanding the subsistence culture of the people of the Arctic. I have maintained relationships with a number of people that I met during these trips and

I will continue to take every opportunity I have to spend time with the people in the villages of the Arctic coast.

27. In the summer of 1999, I traveled for two months in the Chukchi Sea and, in the winter of 1999, I traveled across the frozen Arctic Ocean by snow machine for four weeks in areas north and west of the Prudhoe Bay oil complex.

28. I returned to the western Arctic in 2006, when I floated the Kokolik River in the northwestern Brooks Range, and visited Point Lay. Again, I witnessed an abundance of sea birds. In 2010 and 2012, I traveled to Cape Lisburne and to the Native Village of Point Hope. The opportunity to potentially view walrus and sea birds was again the primary purpose of these visits. I also enjoyed the solitude and wild quality of the Chukchi Sea coast.

29. In addition to the Chukchi Sea, I have a personal connection to the Beaufort Sea. I have been to the coastal plain of the Arctic Refuge at least once each summer for the last 30 years. Some of the summers I have been there more than twice. In June of 2016, I traveled to the Hulahula River and floated from the Brooks Range Mountains all the way out through the river delta and across the coastal lagoon to Arey Island, a barrier island in the Beaufort Sea. While in the Hulahula delta, in the lagoon, and on Arey Island, I witnessed numerous waterfowl, caribou, and ice seals. Waterfowl viewing on the coast of the Arctic Ocean is one of my favorite activities; eiders and long tailed ducks are among my favorite species of birds.

30. In July of 2016, I floated the Canning River starting at Plunge Creek in the Brooks Range and floating all the way out to the Beaufort Sea. While camping on the edge of the Arctic Ocean I spent two days exploring the coastline. Traveling through the delta and along the Beaufort coast I witnessed musk ox, herds of thousands of caribou, arctic fox, and numerous species of waterfowl and shore birds. From the Canning River, I was able to see the infrastructure

supporting ExxonMobil's natural gas development and production at Point Thomson. Being able to view the Exxon's development facilities greatly impacted my wilderness experience. I had gone through great effort to find solitude and to experience undisturbed wildlife, and I am concerned that the presence of Exxon's development and production activities will impact the behavior of the wildlife and perhaps drive them away. The Canning is a river I float often and I am worried that the Point Thompson development will have a negative impact on my future trips. The Canning River delta is an area that is incredibly rich in wildlife, with some of the best opportunities on the North Slope to reliably see caribou, wolves, bears, and a wide variety of waterfowl on a float trip, and I believe the presence of a large industrial development in the region will have a negative effect on my enjoyment of the river and delta, and my chances to view wildlife in the area.

31. In June of 2015, I floated the Kongakut River from the Brooks Range to Icy Reef. While on Icy Reef I was able to view eiders, loons and longtailed ducks. This landscape on the edge of the ocean is my favorite landscape in the Arctic. The barrier islands, coastal lagoons and nearshore environments team with life. While traveling in this region I have encountered the greatest diversity of mammals and birdlife in all of my Arctic travels. This is what keeps me coming back to the Arctic, and what I am most afraid of losing from oil and gas development in the offshore. Development brings the risk of oil spills which would have disastrous effects on the biodiversity of the ocean and the nearshore environment, and the noise and toxic pollution that comes with exploration and development will also greatly diminish the biodiversity of the area.

32. In July of 2015, I spent four days in Kaktovik where I spent time visiting with the residents and learning about their history and connections to the land. I enjoy the opportunity to

learn about the history of Alaska Native people, and worry that oil and gas exploration and development will negatively impact their subsistence lifestyle and cultural traditions.

33. In June of 2014, I floated the Aichilik River from the Brooks Range to the Beaufort Sea and Icy Reef. In the Aichilik Delta and out on Icy Reef, I witnessed a buff-breasted sandpiper, a very rare bird and the only one I have ever seen, along with snowy owls, caribou and grizzly bears. It was a lifetime experience to see the buff-breasted sandpiper, and I worry the oil development in the Arctic Ocean could negatively impact my opportunity to continue to have opportunities to see such wildlife and birds.

34. In the fall of 2011, I spent a day on Barter Island just off the northern coast of the Arctic National Wildlife Refuge observing polar bears. I spent six hours watching polar bears on the gravel islands and the frozen ice of the lagoon. I was able to observe 19 bears on that day. The opportunity to view polar bears, other marine mammals and sea birds are what keep bringing me back up to the coasts of the Arctic Ocean.

35. In late August of 2010, I undertook an eight-day backpacking trip with my wife and four other family friends. We hiked from the Sadlerochit Mountains to the mouth of Marsh Creek on the edge of the Beaufort Sea. This was an important opportunity for me to introduce my wife to the wonders of the Arctic. We were able to witness aurora borealis, caribou in the Marsh Creek delta, a variety of birds foraging in the delta and a seal swimming off the coast at Marsh Creek in Camden Bay (the site of Shell Oil's proposed Beaufort Sea drilling operations). We were picked up by a boat and as we traveled back to Barter Island we were able to see five polar bears on the gravel barrier islands.

36. In the summer of 2009, I spent two days on Barter Island. During those two days I traveled by motorboat twice into the Beaufort Sea to observe the bears. We traveled maybe as far

three miles outside of the barrier islands and as far west as Camden Bay and roughly 15 miles east of Barter Island. I would estimate that I observed over a dozen individual bears in that time. In the summer of 2008, I spent three days on Barter Island again observing polar bears. At one time during my stay I was able to count over 20 bears in view.

37. In July 2007, I traveled to the Arctic Refuge to raft the Kongukut River. On July 31st, we reached the coast and paddled across the lagoon to make camp on Icy Reef, an island across from the mouth of the Kongukut River's main stem. That evening I saw a whale spout about a quarter mile off of the island. I watched for about 10 minutes and saw five spouts. I continued to periodically check the ocean for more whale activity. While scanning the ocean, I saw a splash about a mile or two off the shore and, using binoculars, I was able to see that it was a whale breaching. Given its thick-bodied, club shape, it appeared to me to be a bowhead whale. I watched the area of the ocean for at least half an hour, and in that time I saw at least six breachings. At one point, in less than a minute, I saw four flukes slapping at the water. Because of the short time frame and relative location of the flukes, I believe that there were at least three whales involved.

38. I have also spent time in Deadhorse, where I have seen firsthand the impacts of industrial oil development. I have witnessed the expansive web of pipelines and roads. I have seen the dust come off the roads as the trucks travel on them. I have seen black smoke emitted and gas flaring. I was very pleased when President Obama used section 12a of the Outer Continental Shelf Lands Act to withdraw a majority of the Chukchi and Beaufort Seas from potential oil and gas leasing and development. I felt that President Obama's action protected the natural values of the Arctic Ocean which is the principle reason I work to protect it and take the effort to visit and experience it. I am very concerned that the Trump Administration has attempted to reverse this decision and

allow industrial oil and gas activities to spread into the offshore areas of the Chukchi and Beaufort Seas.

39. I am particularly concerned about the possibility of an oil spill occurring if oil and gas exploration drilling resumes under the Trump Administration. In my professional capacity I am well aware of the risks associated with drilling and the chances of oil spills. In 1998 as part of my work responsibilities, I was invited to witness an oil spill clean-up drill conducted by Alaska Clean Seas off of the Prudhoe Bay oil fields. This drill took place in broken ice conditions but in calm seas. Despite their best efforts, the crews were unable to properly deploy their equipment and the test was not a success. I am not aware of any advances in technology in this area. When I think about what would happen in the event of a real oil spill in the Chukchi or Beaufort Sea, I am very concerned about the fate of the marine mammals and sea birds that rely on this area. I am concerned about the impacts this would have on the coastal lagoons and shoreline. I have witnessed the lingering effects of the Exxon Valdez Oil Spill in Prince William Sound where a number of affected species have still to recover and where I have dug down into the gravel to find the oil still in the environment. I am very concerned that similar impacts along the Chukchi and Beaufort coasts will ruin my opportunity to enjoy this area for its wilderness quality and wildlife populations in the future.

40. I am also concerned that noise impacts from drilling, development, and production activities will drive away wildlife from the coastal areas and significantly decrease or completely erase my opportunity to enjoy wildlife viewing on my future trips to the Chukchi and Beaufort coastal areas. What draws me to the Arctic is the vast wilderness and the opportunity to see wildlife and birds in their natural environment relatively free from the impact of industrial activity. Industrial oil and gas exploration and development would negatively impact these

experiences. I have experienced firsthand the noise and disturbance caused by industrial oil and gas activities in the Arctic, including offshore exploration. I have watched barges, seismic ships, helicopters, and airplanes travel through Alaska's Arctic in support of oil exploration. Due to the flat topography of the coastal plain, you can see oil and gas activities from a great distance. In 1996, I floated the Hulahula River. For the last 30 miles of the river trip and while camping on Arey Island, a barrier island in the Beaufort Sea, I was able to see an oil drilling rig, the CIDS, that was anchored in the nearby Camden Bay. When I compare this trip to other times I have floated the Hulahula and not observed the signs of oil exploration and development, I can say that the sight of this drill rig greatly diminished my experience.

41. I am not just concerned about the effects of oil and gas drilling, I am also very concerned about the potential impacts from seismic surveying in the Arctic Ocean. In the summer of 2000, I witnessed seismic exploration on the Beaufort Sea in an area near Point Barrow. I witnessed and heard the noises created by the blasting and other activities. I am very concerned that level of noise pollution would have very damaging impacts on the marine mammals, birds, and other ocean life. I worry that these activities will potentially drive these animals away and could cause them harm and even death. If the birds and wildlife are driven away, my opportunity to enjoy experiencing them would be deeply harmed. At the very least, seismic surveying would cause the wildlife and birds to change their behavior or be driven away, and at worst to be killed. Just knowing that marine mammals, birds, and other ocean life may suffer from seismic activities would cause me harm, even if I were not up in the Arctic at the time to witness them. If the wildlife and bird populations were diminished or their behavior changed from seismic, it is likely that I would choose to no longer visit the Arctic.

42. I am concerned about the impacts of oil and gas exploration activities on Pacific walrus. I have closely studied the natural history of the Pacific walrus in the Chukchi Sea and understand the importance of the floating ice pack for resting and foraging. I have also learned about the effects of climate change on Arctic sea ice and, consequently, on walrus. I have become alarmed at the increased dependence of walrus on terrestrial haul-outs along the Chukchi coast, where they are subject to various stresses, including higher mortality from predation and stampedes. I worry that the increased stress from seismic surveys and offshore oil exploration and development might be more than the walrus can take. Impacts to walrus will cause me harm because my ability to witness and experience these animals in person may be diminished. Additionally, I will be harmed knowing that any decline in walrus numbers will affect the Alaska Native communities and community members who I count as friends and who rely on these animals as part of their subsistence culture.

43. I am concerned that seismic surveys along with oil and gas exploration and development would have negative effects on other marine mammals like polar bears and the ice seals. These animals are already feeling the stress from climate change, and I worry that additional stress might severely decrease their populations.

44. Oil and gas exploration drilling and production activities in the Arctic Ocean would greatly decrease my enjoyment in traveling to the Arctic Refuge, the Beaufort Sea, and the Chukchi Sea coast. The arctic landscape and coastline and its interface with the Arctic Ocean are the wildest places that I have ever been. This wildness is incredibly important to me. I enjoy the opportunity to view the wildlife and birds that exist in undisturbed ecosystems. Oil and gas activities, including its industrial infrastructure, increased vessel and air traffic, and associated air, water, and noise pollution, will ruin the wild character of the area. In the event of an oil spill,

the level of industrial activity required to manage a spill would increase dramatically which would further decrease my ability to explore and enjoy this area. In addition these impacts would linger for decades, possibly much longer, and decrease the ability for future generations to experience this area.

45. As a professional wilderness guide, I routinely bring people to the Arctic to experience the wilderness quality of these areas. Oil and gas activities in the Chukchi and/or Beaufort Seas would greatly affect our guiding business and would limit the desire of our clients to visit the area. Our clients pay large amounts of money to travel to the Arctic because they want to experience the wildest area in the country. If they are confronted with signs of industrial development, or even worse, oil washing up on the beaches and killing wildlife, their experience will be greatly harmed. My clients would also be harmed by seismic exploration activities both directly from the boat traffic and potential noise and also if this activity were to harm or drive away the wildlife that they have come so far to see.

46. I am on the Board of Directors of the non-profit Friends of Cooper Island which supports the study of black guillemots on Cooper Island in the Beaufort Sea. I enjoy being part of this board and supporting this important scientific work. Black guillemots are an ice-dependent species that forages for food at the sea ice edge. Black guillemots' reliance on the Arctic marine environment also make them an ideal indicator of the effects of climate change in the Arctic. The study on Cooper Island is looking at the survival rates of black guillemot young related to the distance the ice edge is from the shore. This is a unique long-term study with nearly four decades of continual observation and data-collection. I am worried that oil and gas exploration and development may cause harm to these birds, by scaring them from their nesting sites on Cooper Island or affecting their ability to find food, and consequently negatively affect this study.

Disruption of this study would have a negative impact on scientific understanding of black guillemot behavior and of the effects of global warming in the Arctic.

47. In my three decades of travel throughout the American Arctic, I have witnessed firsthand the impacts that the region is facing due to climate change. The three most noticeable impacts have been the melting sea ice, the changes in terrestrial vegetation, and the melting permafrost. My first trip to the Arctic Ocean was in late July and early August of 1992, and that year I found the sea ice right up to the Beaufort Sea shoreline in places like Arey Island and Icy Reef. That was the case until 2007. Starting in 2007, when I visited the Arctic coast in August, there was no sign of sea ice and the Arctic Ocean had waves washing up on the barrier islands. This was a new occurrence to me. Now every summer I am amazed by the changes that I see from one year to the next as the waves are washing away the barrier islands and the coast. I also view the satellite images of the Arctic sea ice throughout the summer and have witnessed how much and how fast it melts out of the Chukchi Sea every year. These changes are very concerning to me as they change the nature of my experience on the coast. It makes it more difficult for me to travel along the coast, to view and experience whales, polar bears, Pacific walrus and other wildlife, like ice seals, and birds, like eiders. I believe that black carbon and CO₂ emissions from oil and gas activities will accelerate and exacerbate global warming. I am particularly concerned that these emissions will accelerate the changes that I have seen onshore and off and which have a very negative impact on the flora and fauna.

48. I have been a longtime fan of the Arctic. This is the part of the world that I most closely identify with and I am personally moved by the beauty of the landscape. I find it very disturbing that in my lifetime climate change could make it harder for me to enjoy this landscape.

49. Over the past 20 years I have developed close personal relationships with residents of the Arctic coast from Point Hope in the west all the way across to Kaktovik in the east. I have regularly spent time visiting and traveling with people living along the Arctic coast and they have told me about the changes they have seen in their lifetime -- reduced sea ice that makes it difficult to hunt for seals and changes in the landscape that makes it difficult for terrestrial food gathering. Again I am very disturbed by the possibility that one of America's last subsistence cultures could be gone because of the impacts industrial activity and a warming Arctic.

50. I teach my son about the amazing plants and wildlife that are found in the Arctic. I have shown him pictures from my trips viewing walrus and talked about their natural history and how they use the Arctic sea ice as a platform to forage from and for resting. We have also talked about the news stories on the massive haul-outs of walrus along the Chukchi coast and what impacts that has on the walrus populations. In addition to walrus I have shared my photos of polar bears, and sea ducks. We have talked about the unique adaptations these animals have to living in the Arctic, from the furry feet of the polar bear to the unique way the spectacled eiders over-winter in the open water polynyas in the Bering Sea. My son and I both worry about the harm oil development and climate change will cause to these unique creatures. In the future I look forward to sharing my experiences traveling along the Arctic coast with my son. I hope to show him the wildlife that relies on the sea ice including polar bears, walrus, ice seals, and sea birds. I also hope to be able to introduce him to my friends in the Arctic coastal villages and have him learn about their subsistence cultures. If warming and the resulting changes to sea ice, permafrost, and terrestrial vegetation continue, I fear that I will lose these opportunities for my son.

51. As in the past, I returned to the Arctic Ocean this past summer. In June of 2017, I floated the Aichilik River, paddled across the lagoon and camped for one night on Icy Reef. This trip reaffirmed my appreciation for the coastal and nearshore environment. While the rest of the whole of the Aichilik River is great, my favorite part of the trip is the river delta and barrier island region. This is the area where I witness the most wildlife. The bird life of the delta is amazing with loons, eiders, swans and scoters being very prominent. While on Icy Reef I also witnessed seals, likely Bearded seals, in the Arctic Ocean. If I had been confronted with the effects of oil exploration and development, including infrastructure, industrial noise, water pollution, oil spill pollution, or excessive boat and plane traffic, it would have greatly diminished my experience and made it unlikely that I would consider returning to the Aichilik River delta or Icy Reef again.

52. In 2018 I am planning to return to the Arey Island and the edge of the Beaufort Sea. I will be floating down the Hulahula River from the Brooks Range to the Beaufort. Again the main purpose of this trip will be to experience the incredible abundance of birds and wildlife found in the shoreline environment of the Arctic Ocean.

53. I believe increased noise from seismic exploration activities, drilling rigs and support vessels may deflect bowhead whales farther offshore and away from their migratory route in the Chukchi and Beaufort Seas. An oil spill may have devastating impacts upon the marine mammals, seabirds, and fish of the Arctic Ocean from which they may not recover. Increased air traffic from helicopters flying from on-land hubs to offshore drill sites may disturb caribou, migratory birds nesting along the coastal plain, and other land-based mammals. I am also concerned about the potential impacts from the infrastructure needed to facilitate oil production including pipelines and production facilities. To the extent that oil and gas activities harm the

wildlife and birds of the Chukchi and Beaufort seas and their coastal regions, I believe I will not be able to experience the sights of whales, polar bears, walrus, seals, caribou, and migratory birds on my return trips to the western Arctic, and the Chukchi coast. This will seriously diminish my wilderness experiences in the Arctic.

I hereby declare under penalty of perjury that the foregoing declaration is true and correct.

Dated: June 2, 2018

By: 
Dan Ritzman